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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/700,200

11/03/2003

Jo-Wen Lin

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09/03/2008

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MINNEAPOLIS, MN 55402-1498

EXAMINER

SCHILLINGER, ANN M

ART UNIT

PAPER NUMBER

3774

MAIL DATE

DELIVERY MODE

09/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/700,200	Applicant(s) LIN, JO-WEN	
	Examiner ANN SCHILLINGER	Art Unit 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 1-20,33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-32 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21, 22, 24, 26-29, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Shepard (US Pub. No. 2004/0078078). Shepard discloses the following of claim 21: a spinal bone implant comprising: a body (10) made of bone (paragraphs 0059-0060) and having superior (top) and inferior (bottom) surfaces for bearing against respective adjacent vertebrae defining a disc space therebetween, the body defining a plane and having spaced respective anterior (front) and posterior (back) end surfaces defining an anterior-posterior axis in the plane, the body having a bore (40 or 42) in communication with an outer peripheral surface (32) at the anterior end surface and extending in the region between the inferior and posterior surfaces (see Figure 2), the bore being at least one of inclined at an angle to the anterior-posterior axis or offset relative to the anterior-posterior axis, and the bore being configured to receive an instrument (elements 40, 42 would be fully capable of receiving an instrument).

Shepard discloses claim 22 in claim 15 on page 6.

Shepard discloses claim 24 as shown in Figure 1.

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Shepard discloses the following of claim 26: the implant of claim 21 wherein the implant has an outer peripheral wall surface, the outer peripheral wall surface having a curved portion and a flat portion, the flat portion being located on said axis at said anterior end of the implant. Please see Figures 1-9 where the peripheral surface is curved at the corners and flat along the walls.

Shepard discloses claims 27-29 as shown in Figures 1 and 2.

Shepard discloses claim 32 in paragraph 0021.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard in view of McKay (US Pat. No. 6,261,586). Shepard discloses the invention substantially as claimed, however, Shepard does not disclose a central opening with a blind bore. McKay teaches a bone graft that may be used in the spine which a central opening and a blind bore in col. 11, lines 1-55, where the central opening can be packed with an osteogenic composition to stimulate osteoinduction. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a central opening and a blind bore, where the central opening can be packed with an osteogenic composition to stimulate osteoinduction.

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Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard in view of Henry et al. (US Pat. No. 5,766,252). Shepard discloses the invention substantially as claimed, however, Shepard does not disclose a central opening in communication with an anterior end bore. Henry et al. teaches a spinal implant which has a central opening in communication with an anterior end bore in col. 5, lines 13-45 and col. 4, lines 29-46, where the central opening can be promote fusion by being filled with bone graft material, and the bore can be used to engage an insertion tool. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a central opening communicating with a bore, where the central opening can be filled with bone graft material to promote fusion, and the bore can be used to engage an insertion tool.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard in view of Lahille et al. (US Pat. No. 5,554,191). Shepard discloses the invention substantially as claimed, however, Shepard does not disclose roughened superior and/or inferior surfaces. Lahille et al. teaches a spinal implant which has roughened superior and inferior surfaces in col. 8, lines 35-65, for the purpose of anchoring the prosthesis in place. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have roughened superior and inferior surfaces in order to hold the prosthesis in place.

Claims 31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard in view of Boyle et al. (US Pub. No. 2002/0026242). Shepard discloses the invention being made of bone, however, Shepard does not disclose obtaining cortical bone from a section of the diaphysis of a long bone. Boyle et al. teaches an intervertebral implant which is made from a section of cortical bone from the diaphysis of a long bone in the abstract and paragraphs 0013

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and 0041, for the purpose of utilizing the bone's intramedullary canal at serve as an opening in the implant. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the implant from a section of the diaphysis of a long bone in order to utilizing the bone's intramedullary canal at serve as an opening in the implant.

Response to Arguments

Applicant's arguments filed 6/10/2008 have been fully considered but they are not persuasive. The Applicant contends that the Shepard reference does not have a bore configured to receive an instrument. However the bores cited above from the Shepard reference, would be fully capable of receiving an instrument. In the instant case of the Shepard reference, the instrument could be utilized in the bores prior to the insertion of the pins. Please also note that the claim language "configured to" is functional language. In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANN SCHILLINGER whose telephone number is (571)272-6652. The examiner can normally be reached on Mon. thru Fri. 9 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on (571) 272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. S./

Examiner, Art Unit 3774

/William H. Matthews/

Primary Examiner, Art Unit 3774